

REMARKS

In response to the Examiner's requirement in paragraph 2 of the Office Action, a clean copy of the Abstract of the Disclosure is attached hereto, on a separate page, as required. In addition, the second line of Claim 29 has been amended to change the phrase "a radome mode" to "a radome made". Accordingly, reconsideration and withdrawal of these grounds of objection are respectfully requested.

Applicants acknowledge the allowance of Claims 17-27 and 29, as set forth at page 1 of the Office Action. Claim 28 has been rejected under 35 U.S.C. §102(b) as anticipated by Honigsbaum (U.S. Patent No. 4,886,221). However, for the reasons set forth hereinafter, Applicants respectfully submit that the invention defined in Claim 28 distinguishes over the Honigsbaum reference.

The invention of Claim 28 is directed to a lightning protection method. In particular, it defines a method for conducting lightning across the surface of a nonconducting article, thereby providing a conductive path which is sufficient to accommodate the larger electrical currents which result from lightning strikes. The method according to Claim 28 includes, among others, the steps of delivering a conducting fluid to the outer surface of an article prior to a lightning strike, and directing the conducting fluid across the outer surface of the article, thereby providing a conductive channel "having a current conducting capacity sufficient for passage of electrical current resulting from a lightning strike and for

dissipating said current through a conductive medium to which the article is electrically coupled".

The Honigsbaum reference, on the other hand, is directed to a charge control apparatus for flight craft by providing a "second body" (the craft itself being the "first body"), which is maintained at a desired potential to which potential the craft itself is adjusted by a driven charge control means. (See Column 2, lines 39-46.) In this manner, the probability of lightning striking the craft, for example, is reduced, as noted at Column 2, lines 50-56. In all events, in each embodiment, and in each of the different types of "craft" which are discussed, the objective of the Honigsbaum apparatus is to control the potential of the craft to a desired value, and not to deal with or dissipate lightning strikes.

According to a preferred embodiment discussed at Column 2, line 61 through Column 3, line 5, the second body is maintained at the desired potential by providing droplets that are charged by a well known electrostatic mechanism in such a way that charges that would otherwise unfavorably alter the desired potential at the second body are carried off by the droplets. These features of the Honigsbaum apparatus are discussed in greater detail at Column 3, line 67 through Column 4, line 29.

As can be seen from the foregoing brief description, the Honigsbaum apparatus differs fundamentally from the invention of Claim 28. In particular, the Honigsbaum system is neither designed for, nor capable of dissipating a

lightning strike, as expressly recited in Claim 28. More particularly, it does not provide for directing a conducting fluid across the outer surface of any article, with the conducting fluid "having a current conducting capacity sufficient for passage of electrical current resulting from the lightning strike and for dissipating said current through a conductive medium...." In regard to the latter proposition, it is apparent that the function of the fluid droplets 130 is simply to maintain the second body at the desired potential. Such droplets are manifestly incapable of conducting a current resulting from a lightning strike. Accordingly, Applicants respectfully submit that Claim 28 distinguishes over the Honigsbaum reference.

Moreover, while not directly pertinent to the §102 rejection, it is also noteworthy that Honigsbaum is directed to a different technical field than that of the present invention. In particular, as noted previously, Honigsbaum discloses a charge control apparatus for adjusting the potential of a craft to that of a reference, as indicated in the Abstract, which reduces the risk of a lightning strike by adjusting the electrostatic potential of the craft to be closer to its surroundings. (See Column 2, lines 50-56 and Column 6, lines 60 to Column 7, line 8.) While Honigsbaum acknowledges the "unfortunate consequences of a lightning strike" (Column 7, lines 4-5), it does not provide any teaching to enable a skilled person to avoid those consequences.

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The present invention advantageously provides protection against the consequences of a lightning strike through, for example, the method of Claim 28. Honigsbaum is not susceptible to modification in any apparent manner in order to accomplish this goal. Accordingly, the invention of Claim 28 is neither anticipated by nor obvious over to the disclosure in Honigsbaum.

In light of the foregoing remarks, this application should be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket # 2101/50765).

Respectfully submitted,



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Attachment – Clean copy of Abstract of the Disclosure